TORO Count on it.

RESIDENTIAL/COMMERCIAL

TDC Series

Advanced Two Wire Decoder Control

Using a two-wire path to communicate to waterproof decoders located in the valve boxes, the TDC system eliminates the costs associated with traditional valve wire bundles and provides a solution that is vandal-resistant and easy to install and expand.

TDC Controller

1, 2, 4-station Decoders

POWERFUL

- Fewer wire paths
- Accommodates the largest systems
- Optimizes water use

EASY TO INSTALL

- Flexible design and installation
- Fewer SKUs and components needed
- Saves design time

EASY TO OWN

- Lower maintenance cost
- Reduced troubleshooting time
- Simple to expand

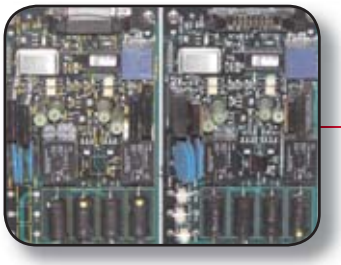
TDC Series Features and Benefits

DECODER CONTROL

Choose from 1, 2, and 4 station decoders as well as optional sensor decoders. Each decoder has the ability to drive 2 DC Latching Solenoids.

LOW POWER OPERATING COSTS

The TDC Decoders operate DC Latching Solenoids which utilize significantly less power than AC solenoids.



MODULAR DESIGN

The TDC has a base of 100 stations and can be upgraded to 200 stations without purchasing a new controller.

ADVANCED DIAGNOSTICS

The TDC provides true two way communication with each decoder in the field, thus providing communication verification to decoders in the field, as well as shorted or open solenoid conditions, making troubleshooting a breeze.

ACCESSORIES

Wired or wireless rain or rain/freeze sensors are available to shutdown irrigation if user defined conditions occur in the field

Feature and Benefit Highlights

Specifying and subsequent installation of the TDC Series is simple due to the nature of its low power operating requirements. Use 14 AWG Toro Decoder Cable and rest assured that the system will achieve the maximum specifiations without having to do any voltage drop calculations. There are no solenoid amperage restrictions with the TDC system.

TDC's simple, intuitive and easy-to-use user interface makes it a breeze to control up to 200 stations. Operate up to 20 simultaneous stations, including remote pumps and master valves, up to 15,000 ft. from the controller.

Save installation costs on wire when compared to traditional large control systems by using two wire cable(s) from the controller. When it comes time to add stations, there is no need to run wire back to the controller. Simply just splice into the two wire path and add a decoder and valve(s).

Features

Stand-alone Controllers

- Modular controller up to 200 stations
- Large LCD display and simple, intuitive programming interface
- 20 KV surge protection at the controller
- 10 independent irrigation programs and 1 non-irrigation program
- 6 start times per program
- 14-day calendar and 14-day interval watering schedule
- Odd/Even day watering
- Day Exclusion (remove a day from standard program)
- Programmable master valve, by station
- Programmable pump start, by station
- Manual start of each station or entire program
- Water Budget by controller, by program and by station (Season Adjust) 0 to 250% in 1% increments
- Non-volatile memory retains programming in the event of power outage
- Self-diagnostics circuit breaker skips shorted/open stations and continues watering
- Two-way confirmation of decoder activation
- Activate up to 20 solenoids at up to 2.8 miles (4,5 km) away from the controller
- Programmable rain delay up to 31 days
- Dual pump/master valve outputs programmable by station
- 12-/24-hour real time clock
- Lockable, weather-resistant wall-mount cabinet
- Water window calculator
- 10-digit alpha-numeric zone identification
- Remote Ready and RainSensor™ compatible
- 8 independently fused two wire paths to field decoders
- Upgradable to Sentinel Central Control

Decoders

- 1-, 2- or 4-station decoders with built in surge protection
- 1 or 2 solenoids per station
- Utilizes D.C. latching solenoids for valve control
- Sensor decoder for connection to pulse (flow) or switch (rain) type sensors

Specifications

Electrical Input power:	***Wiring-two wire path:***
120 V AC or 220/240 V AC , (50/60 Hz)	Jacketed, white/black twisted pair 14 AWG to 15,000 ft./4.5 km
Station output power:	***Wiring-decoder to solenoid:***
• Up to 38 V AC maximum • 3 amps maximum output	Standard pair 14 AWG/1mm to 400 ft./120m
Solenoid Capacity:	***Cabinet dimensions:***
2 Toro DCLS-P solenoids per output within spec wire runs, up to 40 max simultaneous (includes dual P/MV outputs)	14"W x 13"H x 6"D (35½ x 33½ x 15cm)
UI. CUI approved	***Operating temperature:***
	0°–140° F (-18°–60° C)

Model Specifications

Front Entry Wall Mount Cabinet

Specifying Information

CDEC | SA | XXX

Model	Control Type	Station Count
CDEC	SA	100 200

Example: A TDC Controller with 200 stations, would be specified as: **CDEC-SA-200**

1, 2, 4-station Decoders

Specifying Information

Model	Description
CDEC-1	Single Station Decoder
CDEC-2	Two Station Decoder
CDEC-4	Four Station Decoder
CDEC-SEN	Sensor Decoder

1, 2, 4-station Surge Protectors

Specifying Information

Model	Description
DEC-SG-LINE	Decoder, line surge protector
DEC-SG-OUTPUT	Decoder, output surge protector

EZ-Flo Plus Jar Top Valves with Pre-Installed Latching Solenoid

Specifying Information

Model	Description
EZF-20-94	1", Electric, Slip w/Flow Control and DCLS-P
EZF-21-94	1", Electric, Male x Male w/Flow Control and DCLS-P
EZF-25-94	1", Electric, Male x Barb NPT w/Flow Control and DCLS-P
EZF-26-96	1", Electric, Female NPT w/Flow Control and DCLS-P
DCLS-P	Potted latching solenoid

P-220 Valves with Pre-Installed Latching Solenoid

Specifying Information

Model	Description
P220-26-94	1", Electric, In-line, Angle and DCLS-P
P220-26-96	1½", Electric, In-line, Angle and DCLS-P
P220-26-98	2", Electric, In-line, Angle and DCLS-P
P220-26-90	3", Electric, In-line, Angle and DCLS-P
DCLS-P	Potted latching solenoid

TDC Series

Advanced Two Wire Decoder Control

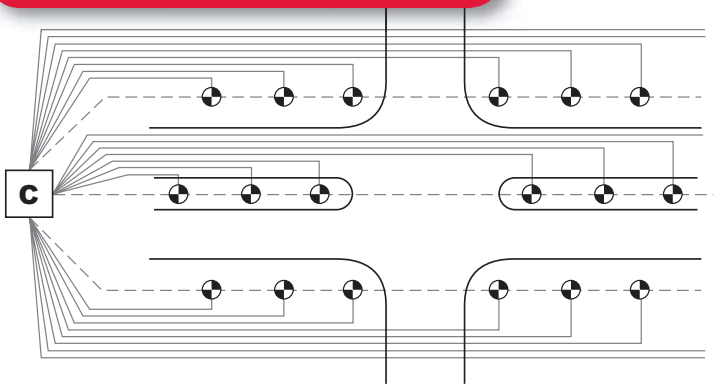
The Toro TDC System uses innovative technology to provide an irrigation solution to value oriented customers who also want a safe, reliable and energy efficient system. The System uses proven aerospace technology to allow for longer wire runs, smaller gauge wire sizes and more simultaneous valves in operation.

Using a two-wire path to communicate to buried decoders, the system eliminates the costs associated with traditional valve wire bundles and provides a solution that is vandal-resistant, easy to install and easy to expand.

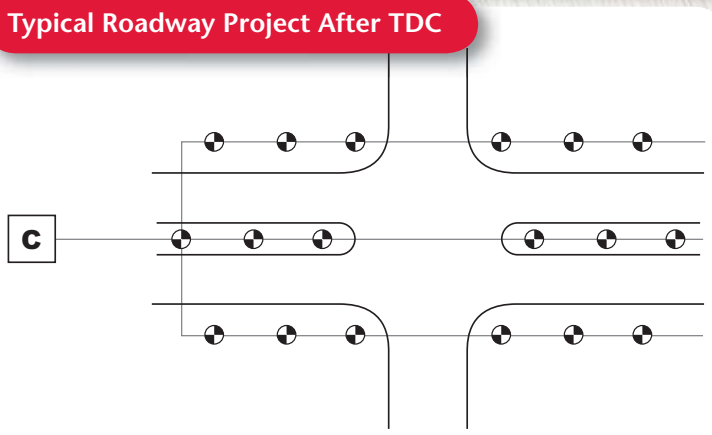
The TDC system comes standard with industry leading surge protection and the most advanced diagnostic tools available in any decoder system on the market. Installation and future servicing are quick and simple thanks to the industry's most widely accepted intuitive, easy to use programming interface.

Whether you have 50, 100 or up to 200 stations, the TDC is the system to meet your site specific needs.

Typical Roadway Project Before TDC



Typical Roadway Project After TDC



Target Customers

— Median Strips
— Strip Malls
— Parks
— Apartment Complexes
— Corporate Sites
— Residential Developments
— Large Homes
— Sports Fields
— Cemeteries
— Roadway Developments

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